☐ 1. Valid Padlock Index and log, no padlocks open.

UPSTREAM OF X12A HUTCH

☐ 2. Bremsstrahlung shield (BS #1) in place and banded.
☐ 3. Exclusion Zone (EZ #1) at the slit tank is in place as per photo.
☐ 4. Bremsstrahlung shield (BS # 2) in place and banded.
☐ 5. Vacuum Bellows #2 (downstream of the slit tank) is wrapped in lead.
☐ 6. Water cooled Beryllium window #2 wrapped in lead.
☐ 7. Two monochromator viewports have leaded glass secured.
☐ 8. Vacuum Bellows #3 downstream of the monochromator is wrapped in lead.
☐ 9. Exclusion Zone (EZ #2) (aluminum screen) upstream of the mirror tank is in place and secured.
☐ 10. Scintillation counter is in place, and view ports are covered with lead as per photo.
☐ 11. Exclusion Zone (EZ #3) (aluminum screen) is in place and secured; bellows #4 is wrapped in lead and secured beneath.
☐ 12. Bremsstrahlung shield (BS # 3) and Photon shutter lead in place and banded.

INSIDE X12A HUTCH

☐ 13. Exclusion Zone (EZ #4) foam padding, from upstream wall to lead shielded bellows, in place.

DOWNSTREAM OF X12A HUTCH

☐ 14. Exclusion Zone (EZ # 5) (aluminum screen) is in place and secure.
☐ 15. Bremsstrahlung shield (BS # 4) in place and banded.

DOWNSTREAM OF X12C HUTCH

☐ 16. Bremsstrahlung shield (BS # 5) (viewed between X12B and C hutches) is in place and banded.

USER SYSTEM CHECKS

AT THE X12C USER STATION ELECTRONICS RACK

☐ A. Pressure at P1 is less than 4.0×10^{-9} torr.
☐ B. Pressure at P2 thru P5 is less than 9.9×10^{-8} torr.
☐ C. Valves V1, V2, and V3 indicate a green (open) status.
☐ D. Water flow for Proteus #1-6 indicates a green (ok) status.

Checked by: _____ Date: _____

OPCO: _____ Date: _____